

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CUMMINGS MEADOW	Lake Area (ha):	17.16
Town: JAFFREY	Maximum depth (m):	1.8
County: Cheshire	Mean depth (m):	0.6
River Basin: Merrimack	Volume (m ³):	103000
Latitude: 42°49'30" N	Relative depth:	0.4
Longitude: 72°05'50" W	Shore configuration:	1.43
Elevation (ft): 1220	Areal water load (m/yr):	1.92
Shore length (m): 2100	Flushing rate (yr ⁻¹):	3.20
Watershed area (ha): 54.4	P retention coeff.:	0.82
% watershed ponded: 0.0	Lake type:	artificial

BIOLOGICAL:

	26 February 1990	6 September 1989
DOM. PHYTOPLANKTON (% TOTAL) #1	NO PLANKTON SAMPLES	NO SAMPLE COLLECTED
#2	COLLECTED; TOO SHALLOW	
#3	& WEEDY	
PHYTOPLANKTON ABUNDANCE (cells/mL)		1620.0
CHLOROPHYLL-A (µg/L)		8.53
DOM. ZOOPLANKTON (% TOTAL) #1		NO SAMPLE COLLECTED
#2		
#3		
ROTIFERS/LITER	0	0
MICROCRUSTACEA/LITER	0	0
ZOOPLANKTON ABUNDANCE (#/L)	0	0
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		1.2 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	11.6	8.9
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None

CHEMICAL:

Lake: CUMMINGS MEADOW

Town: JAFFREY

	26 February 1990		6 September 1989		
DEPTH (m)	1.0		1.0		
pH (units)	5.6		6.2		
A.N.C. (Alkalinity)	2.0		3.0		
NITRATE NITROGEN	0.18		< 0.05		
TOTAL KJELDAHL NITROGEN	0.44		0.76		
TOTAL PHOSPHORUS	0.022		0.019		
CONDUCTIVITY (μ mhos/cm)	79.0		78.0		
APPARENT COLOR (cpu)	28		88		
MAGNESIUM			0.66		
CALCIUM			2.5		
SODIUM			11.0		
POTASSIUM			0.70		
CHLORIDE	16		16		
SULFATE	6		4		
TN : TP	28		40		
CALCITE SATURATION INDEX			4.2		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1989

D.O. S.D. PLANT CHL TOTAL CLASS

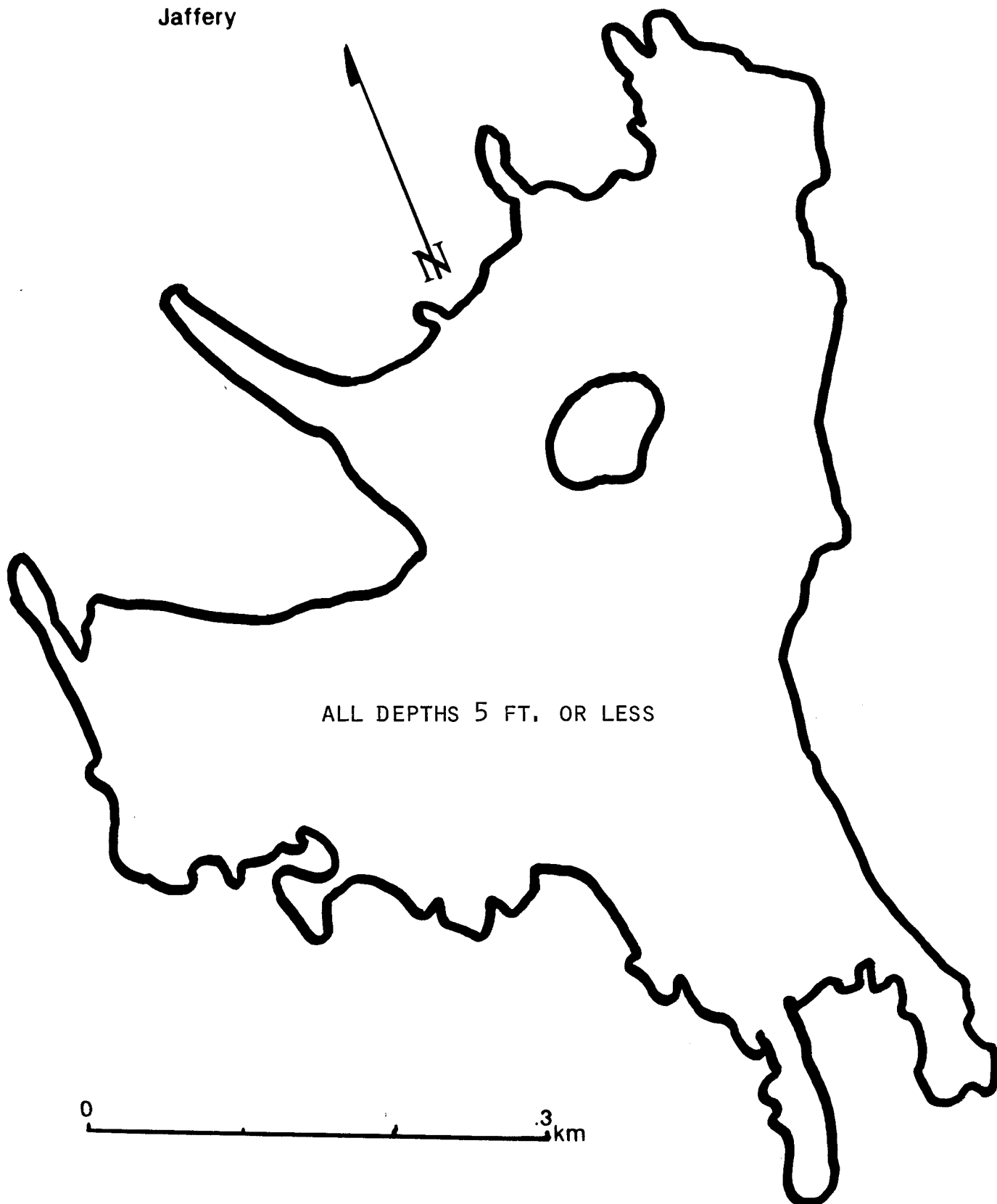
**	3	5	2	10	Eutro.
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COMMENTS:

1. It was not possible to use the fathometer to sound the pond because of the shallowness and weediness of the pond. Scattered soundings were taken. The pond was generally 4 to 5 feet deep throughout with a maximum depth of 6 feet.
2. Land was posted on one side of the small dam.
3. Small flagellates (80%) dominated the whole-water phytoplankton.

Cummings Meadow

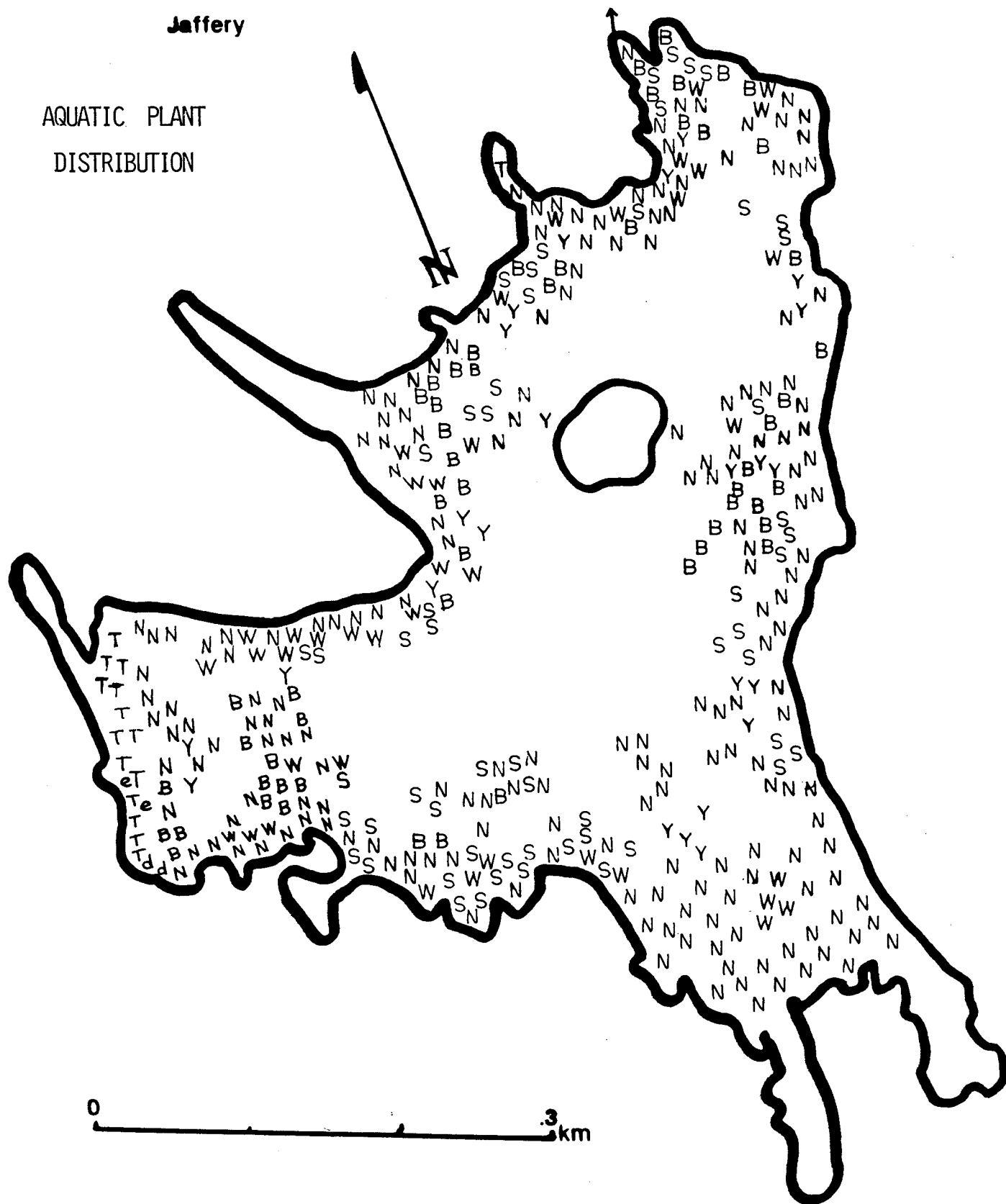
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Cummings Meadow

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AQUATIC PLANT
DISTRIBUTION



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